CLAIMS

1. A precipitated silica exhibiting:
   - a CTAB specific surface of 140 to 230 m^2/g, preferably of 145 to 195 m^2/g, more preferably of 145 to 185 m^2/g, very particularly of 150 to 185 m^2/g, in particular of 150 to 180 m^2/g,
   - a DOP oil uptake of greater than 300 ml/100 g, preferably of greater than 310 ml/100 g, more preferably of 315 to 450 ml/100 g, very particularly of 320 to 400 ml/100 g, in particular of 340 to 380 ml/100 g,
   - a water uptake of less than 6% and preferably of greater than 3%, very particularly of greater than or equal to 4% and of less than or equal to 5.8%,
   - a pH of 3.5 to 7.5, preferably of 4 to 7, very particularly of 4 to 6,
   - a level of residual anion, expressed as sodium sulfate, of less than or equal to 2%, preferably of less than or equal to 1.5%, particularly of less than or equal to 1% and in particular of less than or equal to 0.5%,
   - a mean particle size or a median particle diameter of less than 30 μm or of between 30 μm and 20 mm.

2. The silica as claimed in claim 1, characterized in that it exhibits a mean particle size or a median particle diameter of less than 30 μm, preferably of less than 20 μm, in particular of between 5 and 15 μm, especially between 8 and 13 μm.

3. The silica as claimed in claim 1, characterized in that it exhibits a mean particle size or a median particle diameter of between 30 μm and 20 mm.

4. The silica as claimed in one of claims 1 to 3, characterized in that it exhibits a median particle diameter, after deagglomeration under ultrasound, of at most 35 µm, preferably of at most 30 µm, very particularly of at most 25 µm.

5. The silica as claimed in one of claims 1 to 4, characterized in that it exhibits a BET specific surface such that the BET-CTAB difference is at most 30 m^2/g, preferably at most 25 m^2/g, more preferably at most 20 m^2/g, in particular at most 10 m^2/g.

6. The silica as claimed in one of claims 1 to 5, characterized in that it exhibits a packing density of at most 0.3 g/ml, preferably of 0.04 to 0.3 g/ml.

7. The silica as claimed in one of claims 1 to 6, characterized in that it is provided in the form of a powder.

8. A process for the preparation of a silica as claimed in one of claims 1 to 7, comprising the following stages:

- (a) producing a starting vessel heel with a temperature of between 80 and 100°C, preferably of greater than or equal to 90°C, comprising water and a silicate, the concentration of silicate in said vessel heel, expressed as SiO_2 equivalent, being less than or equal to 15 g/l;
- (b) adding, at a temperature of between 80 and 100°C, preferably 90 and 100°C, an acidifying agent to bring the pH of the medium to a value of between 7 and 8, preferably to a value of between 7.2 and 7.8 and advantageously between 7.3 and 7.7 (typically to a value substantially equal to 7.5);
- (c) in the medium thus produced, carrying out, at a temperature of between 80 and 100°C, preferably

between 90 and 100°C, the simultaneous addition of a silicate and of an acidifying agent, the respective amounts of silicate and of acidifying agent added over time being specifically chosen so that, throughout the duration of the addition:

- the pH of the reaction medium remains between 7 and 8 and advantageously between 7.2 and 7.8; and
- the concentration of silicon in the medium, expressed as SiO_2 equivalent, remains less than or equal to 35 g/l;

- (d) adding, at a temperature of between 80 and 100°C, preferably between 90 and 100°C, an acidifying agent to the medium obtained on conclusion of stage (c) so as to bring the medium to a pH of between 3 and 6.5;
- (e) filtering the aqueous silica dispersion obtained;
- (f) drying the filtration cake produced on conclusion of the filtration, preferably washing it beforehand;
- (g) optionally milling or micronizing the silica obtained on conclusion of stage (f),

said process being characterized in that the filtration cake exhibits, prior to the drying of it in stage (f), a loss on ignition at 1000°C of greater than 82%, preferably of at least 84%, very particularly of 84 to 88%.

9. The use of a silica as claimed in one of claims 1 to 7 or obtained by the process as claimed in claim 8 as reinforcing filler in a matrix based on elastomer(s), in particular clear or semi-clear elastomer(s), for shoe soles.

10. The use of a silica as claimed in one of claims 1 to 7 or obtained by the process as claimed in claim 8 as

reinforcing filler in a matrix based on silicone(s).

11. The use of a silica as claimed in one of claims 1 to 7 or obtained by the process as claimed in claim 8 as carrier for liquids.

12. The use of a silica as claimed in one of claims 1 to 7 or obtained by the process as claimed in claim 8 as thickening filler, carrier and/or excipients in a pasty, gel, solid or liquid organic or aqueous matrix.

13. The use as claimed in claim 12 as thickening filler in a dentifrice composition in the paste or gel form.

14. The use of a silica as claimed in one of claims 1 to 7 or obtained by the process as claimed in claim 8 for the preparation of battery separators.